

TRANSMIT PRIORITIZER CONTEXT PRIORITIZATION SCHEME

ABSTRACT

A method and system prioritizes frames to be transmitted from a local node to a remote node on a Fibre Channel Arbitration Loop. The frames are placed in context queues. Each kind of context queue is assigned a priority. A determination of a set of transmit frame types is made. A user, an external device, or code may determine the number of transmit frame types in the set. A priority is assigned for each of the transmit frame types in the set. The transmit frame types may be determined by context type. The frames are prepared for transmission. The queues are examined by a suitable method to determine order of transmission. The transmit prioritizer preferably comprises five three-entry deep queues in which the prioritizer places valid contexts classified by transmit frame type. Queued contexts are selected for outgoing frame transmission by a prioritization algorithm aimed at saving the current fibre channel loop tenancy to maximize performance whenever possible. The context manager controls context storage and retrieval and the transmit prioritizer selects the context for which frame transfers will be performed.